

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property  
 Organization  
 International Bureau



(43) International Publication Date  
 27 May 2004 (27.05.2004)

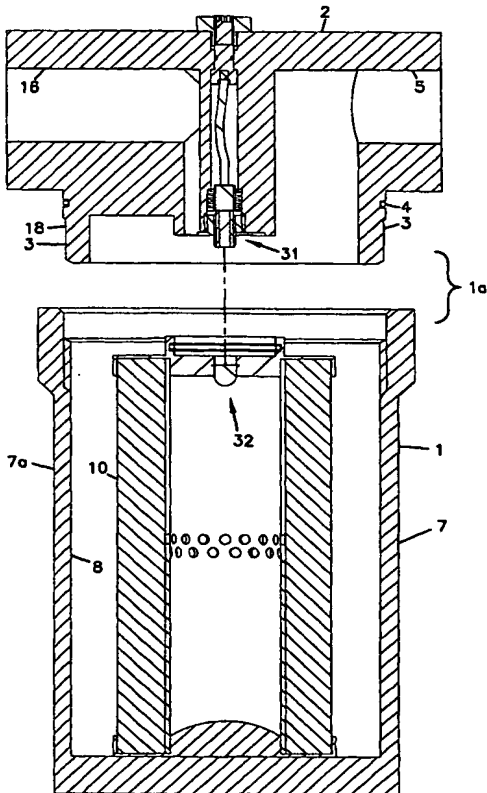
PCT

(10) International Publication Number  
 WO 2004/043570 A3

- (51) International Patent Classification<sup>7</sup>: **B01D 27/10**, [US/US]; 5614 Saint Andrews Avenue, Edina, MN 55424 (US).  
 35/14
- (21) International Application Number: PCT/US2003/035394
- (22) International Filing Date: 5 November 2003 (05.11.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data: 60/424,487 6 November 2002 (06.11.2002) US
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- (81) Designated States (*national*): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (*regional*): ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE,

[Continued on next page]

(54) Title: FILTER CARTRIDGE HAVING COMPONENT FOR USE WITH A SENSOR SYSTEM; ASSEMBLIES; AND, METHODS



(57) Abstract: According to the present disclosure a filter cartridge used as a serviceable component in a cartridge-style filter assembly is provided. The filter cartridge includes, mounted thereon, a communication/sensor circuit completion unit operably positioned so that it will complete a signal circuit only when the filter cartridge is properly mounted, for use. In a typical application, the communication/sensor circuit completion unit is an optic circuit completion unit. The communication /sensor circuit completion unit can be configured: as an optic conduit or reflector, which merely indicates that a circuit is complete; or it can be configured as part of an analytical sensor to evaluate a condition of liquid that passes outwardly from the filter cartridge. A cartridge-style filter assembly including a filter cartridge as characterized, is also provided. Further, a filter assembly comprising a filter head with a cartridge-style filter assembly as characterized is provided. Further, a filter head configured for use with such a serviceable filter cartridge, is provided. Finally, methods of assembly and use are described.

WO 2004/043570 A3



SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

(88) Date of publication of the international search report:  
5 August 2004

**Published:**

— with international search report

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*

# INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 03/35394

A. CLASSIFICATION OF SUBJECT MATTER  
IPC 7 B01D27/10 B01D35/14

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)  
IPC 7 B01D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the International search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 6 051 144 A (MCPHERSON W ROGER ET AL) 18 April 2000 (2000-04-18)	1-7, 11-16, 18-21
Y	abstract; figures 1-35 column 4, line 3 - line 53 column 21, line 3 - line 23 ---	10,17
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X	WO 01/30483 A (FESTO AG & CO ;FRANZ JOCHEN (DE); GEBAUER GUENTER (DE)) 3 May 2001 (2001-05-03) page 1, line 11 - line 19 page 17, line 1 - line 21; figures 1-6 ---	1,3,6, 11-15,21
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☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

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Date of the actual completion of the International search

7 May 2004

Date of mailing of the International search report

17/05/2004

Name and mailing address of the ISA

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# INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 03/35394

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